screws for the femoral shaft fracture. This includes one revision of a failed recon nail to the above configuration. We also compare these cases to another case where a single implant fixation had to be carried out, as the femoral shaft fracture was too proximal for a retrograde nail.

We discuss the literature especially the advantages of the dual implant fixation and even though our experience is small, in most instances we would recommend dual implant fixation as it treats each fracture optimally.

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Fractures associated with nerve injury—trial of practicality of impending national guidelines

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Aim: Evaluate current practice for nerve injury management in a DGH trauma unit. The senior author is part of the group working on BOA Blue Book guidelines. There is concern that guidelines could be idealistic but impractical.

Abstract: Prospective audit of 16 consecutive cases of nerve injury associated with acute fractures presented in 2009. We attempted to treat them within time-frames and clinical guidelines which are likely to be finalised in the BOA Blue Book on management of peripheral nerve injury, to be published in 2010.

Five cases fell outside the guidelines for decision on management and timing of surgery, out of which three cases due to late referral and two cases due to missed injury.

14 patients had nerves explored at the time of fracture treatment, 12 patients had neurolysis from bone compression, 1 patient had direct nerve repair, 1 patient had nerve grafting, 1 patient had fracture treatment and did not need any intervention to nerve. 1 patient had a dislocation reduced with non-operative nerve injury management.

We present latest clinical follow-up, accepting that full potential nerve injury has not yet occurred.

We accept that the organisation and resource of our current service is not ideal. We would not be able to achieve the guidelines anticipated, this study is at least a base-line for what happens now on the ground.

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How does the tip apex distance measure up?

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Introduction: The tip apex distance (TAD) is a simple measurement that predicts screw cut out in the femoral head from peritrochanteric fractures treated with a fixed angle sliding hip screw device. We wanted to assess whether the TAD measurements in our centre were comparable to previously published results, how reproducible these measurements were between observers and how accurate we were at reducing the fractures.

Methods: A retrospective review was conducted of 102 consecutively treated peritrochanteric fractures over a 12-month period. 11 patients were excluded because they did not sustain a peritrochanteric fracture, had treatment of a pathological fracture or because of incomplete radiographic data. Three observers used a standardised method to measure the TAD (from two orthogonal projections with a correction for magnification). The stability of the

Results: 91 fractures were sustained in 90 patients, with one patient being treated for bilateral hip fractures. The male to female ratio was 33:57. The mean age of the patients at the time of treatment was 80 years (range 18–101). Four different implants were used during the study period: 63 Dynamic Hip Screws (DHS), 26 Gamma Nails (GN), 1 Proximal Femoral Nail (PFN) and 1 Intramedullary Hip Screw (IMHS). Ten fractures (11%) were classified as unstable according to OTA/AO classification and 88 (96.7%) had a good or acceptable reduction in theatre. The mean tip apex distance was 19.23 mm (95% CI: 17.98–20.49). Assessing the inter-observer variability, the standard deviation between the three observers was 1.99 mm, equivalent to 10% of the mean TAD. Six patients (6.6%) had a TAD greater then 30 mm, predictive of a much higher extrusion rate.

Conclusions: Our results compare favourably to those seen in original paper by Baumgaertner and we have found a similar level of inter-observer variability in terms of a standard deviation of 10%. Measurement of the TAD retrospectively can provide a useful method to reliably audit our results for quality control purposes and identify whether patients have fixation at higher risk of cut out.

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HIP fracture salvage surgery

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Introduction: Non-union of fractures about the femoral neck and inter-trochanteric hip regions is uncommon. Patients who develop non-unions of these fractures typically exhibit marked pain and disability, thereby presenting a treatment challenge to the orthopaedic surgeon.

Factors that guide the choice of salvage treatment include the anatomic site of the non-union, the quality of the remaining proximal bone and articular surface, and patient factors (such as age and activity level).

Material and methods: During November 2006 to November 2009, 12 patients were referred for related to failure of fixation or AVN or non-union around the hip joint.

In three patients the non-union was treated with re-fixation using proximal femoral plate. One patient required further surgery and hip was revised to total hip replacement.

In three patients the DHS was removed and changed to IMHS. Six other patients underwent total hip replacement to treat cut out of implant or AVN of the femoral head.

Results: All patients achieved satisfactory outcome, however, six patients were not able to return to pre-injury level of activities. This highlights the importance of selection of appropriate implants in hip fracture surgery in the first instance understanding the complexity related to sub-trochanteric and complex proximal femoral fractures.

Overall, salvage of non-unions of femoral neck and inter-trochanteric hip fractures in properly selected patients can provide patients with good to excellent results.

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